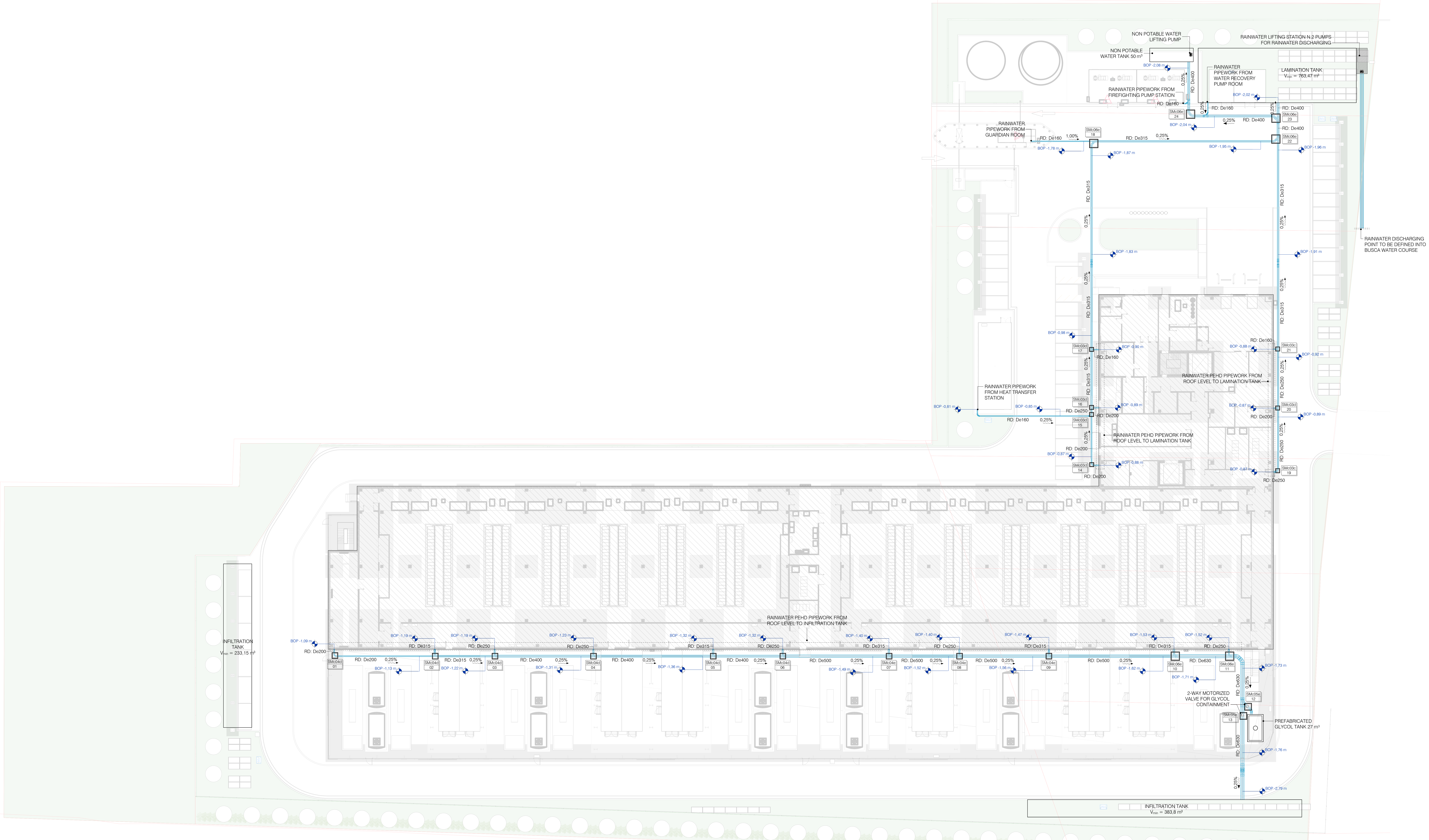
A0 - Do not scale


NON POTABLE WATER LIFTING PUMP
NON POTABLE WATER TANK 50 m³
RAINWATER LIFTING STATION N.2 PUMPS FOR RAINWATER DISCHARGING
LAMINATION TANK V_min = 763,47 m³
RAINWATER PIPEWORK FROM WATER RECOVERY PUMP ROOM
RAINWATER PIPEWORK FROM FIREFIGHTING PUMP STATION
RAINWATER PIPEWORK FROM GUARDIAN ROOM
RAINWATER DISCHARGING POINT TO BE DEFINED INTO BUSCA WATER COURSE
RAINWATER PIPEWORK FROM HEAT TRANSFER STATION
RAINWATER PEHD PIPEWORK FROM ROOF LEVEL TO LAMINATION TANK
RAINWATER PEHD PIPEWORK FROM ROOF LEVEL TO LAMINATION TANK
RAINWATER PEHD PIPEWORK FROM ROOF LEVEL TO INFILTRATION TANK
INFILTRATION TANK V_min = 233,15 m³
INFILTRATION TANK V_min = 383,8 m³
2-WAY MOTORIZED VALVE FOR GLYCOL CONTAINMENT
PREFABRICATED GLYCOL TANK 27 m³
BOP -2,08 m
BOP -2,04 m
BOP -2,02 m
BOP -1,78 m
BOP -1,87 m
BOP -1,95 m
BOP -1,96 m
BOP -1,83 m
BOP -1,91 m
BOP -0,98 m
BOP -0,90 m
BOP -0,88 m
BOP -0,92 m
BOP -0,81 m
BOP -0,85 m
BOP -0,89 m
BOP -0,87 m
BOP -0,89 m
BOP -0,87 m
BOP -0,88 m
BOP -0,87 m
BOP -1,09 m
BOP -1,19 m
BOP -1,13 m
BOP -1,19 m
BOP -1,22 m
BOP -1,23 m
BOP -1,31 m
BOP -1,32 m
BOP -1,36 m
BOP -1,32 m
BOP -1,40 m
BOP -1,49 m
BOP -1,40 m
BOP -1,52 m
BOP -1,47 m
BOP -1,56 m
BOP -1,53 m
BOP -1,62 m
BOP -1,52 m
BOP -1,71 m
BOP -1,73 m
BOP -1,76 m
BOP -2,79 m
RD: De160
RD: De400
RD: De315
RD: De250
RD: De200
RD: De500
RD: De630
0,25%
1,00%
SMc06e 24
SMc06e 23
SMc06e 22
SMc06e 18
SMc03d 17
SMc03d 16
SMc03d 15
SMc03d 14
SMc03c 21
SMc03d 20
SMc03c 19
SMc04d 01
SMc04d 02
SMc04d 03
SMc04d 04
SMc04d 05
SMc04d 06
SMc04e 07
SMc04e 08
SMc04e 09
SMc06e 10
SMc06e 11
SMc05e 12
SMc05e 13

Rainwater Drainage System
1 : 250

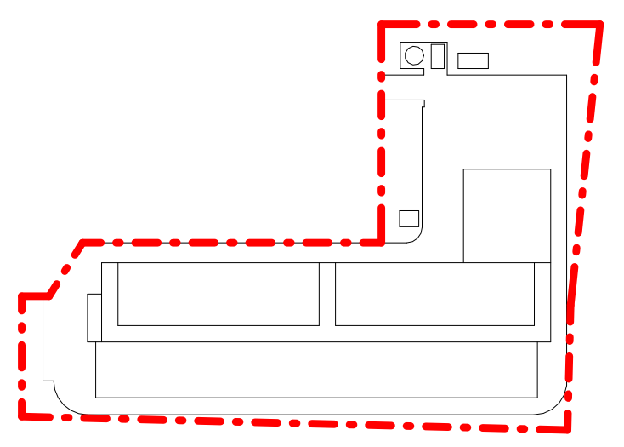
General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in millimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

1000 0 1000 2000 3000 4000
SCALE: 1:100

N

Key Plan



Legend: Pipe Systems

RD	Rain Water
BOP -2,35 m	Bottom of pipe's quote - BOP

Manhole Tag

Object code → PXXX
Height → XXX
YYY ← progessive number

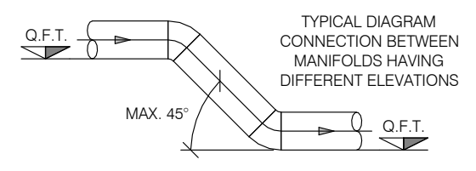
Object code → DXXX
Progressive number → DXXX

5200 Schedule Plumbing Fixtures			
Type Mark	Length	Width	Height
SMc03c	700,00	700,00	1000,00
SMc03d	700,00	700,00	1500,00
SMc04d	1000,00	1000,00	1500,00
SMc04e	1000,00	1000,00	2000,00
SMc05e	1200,00	1200,00	2000,00
SMc06e	1500,00	1500,00	2000,00

NOTES PLUMBING AND DRAINAGE SYSTEMS:

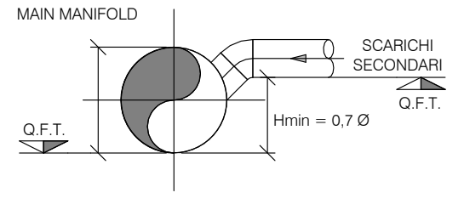
- Supply piping for the water and sanitary utilities within the toilets will be made of multilayer from manifolds.
- In case of supply not derived from manifold, place recessed shut-off taps with cap for each water utility.
- Provide vents at high points and drains (connected to prepared manholes or conduits) at low points, in locations agreed with the DL.
- All drain risers should be equipped with inspectable siphon at the foot, extended above the roof and adequately ventilated.
- Condensate water collection networks must be separate and distinct from those into which they flow by the interposition of permanently wet or dry inspectable odor trap.
- Graywater collection networks must be separate and distinct from those into which they flow by the interposition of an inspectable siphon.
- Stormwater collection networks shall be separate and distinct from blackwater to the collection sumps located upstream of the Inspection/Siphon/Brace unit feeding to the public sewer.
- All discharges collected below the level of discharge to the public sewer shall be conveyed to collection and lifting tanks equipped with electric pumps.
- Testing operations should be carried out while keeping the drainage network continuously visible.
- Provide inspection points in manifolds upstream of each confluence, bend or special piece.
- All discharge pipes, both main and secondary, except where otherwise indicated, shall have the following minimum slopes:

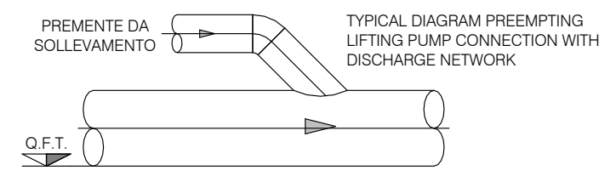
service drains to sewer risers	i=2%.
blackwater / grease collectors	i=1%.
stormwater / condensate manifolds	i=0.5%.


Q.F.T.
MAX. 45°
Q.F.T.

TYPICAL DIAGRAM CONNECTION BETWEEN MANIFOLDS HAVING DIFFERENT ELEVATIONS

TYPICAL DIAGRAM DRAINS CONNECTIONS SECONDARY TO MAIN MANIFOLD


SCARICHI SECONDARI
Q.F.T.
Q.F.T.
Hmin = 0,7 Ø


PREMENTE DA SOLLEVAMENTO
Q.F.T.

TYPICAL DIAGRAM PREEMPTING LIFTING PUMP CONNECTION WITH DISCHARGE NETWORK

GENERAL NOTES:
- Drawing valid only for mechanical installations under contract.
- All measurements and locations of materials and equipment are to be verified on site by the contractor, who shall promptly report any interference with existing.
- Any undetected equipment shall be maintained; if necessary, it shall be modified and restored by the contractor.
- Exact locations of equipment, materials, piping, ducts, connection to existing facilities shall be determined by the contractor and submitted to the construction manager.
- Final sizing according to the manufacturer of the equipment and materials actually installed.
- All equipment must be easily maintainable and accessible via trapdoors or similar solutions even where not specifically specified.
- It will be the contractor's responsibility to size and asseverate all supports, in a workmanlike manner and in compliance with all regulatory requirements for earthquake-proofing.
- Construction detail drawings necessary for the proper execution of the work shall be arranged by the contractor.
- The installation of elements in the field must comply with all manufacturers' prescriptions and recommendations, good engineering rules on acoustics and fire prevention.
- All planned and described interventions, evaluated on the basis of the available documentation, should be re-evaluated and deepened during the works, after plant verification following appropriate surveys of the existing situation.
- The contractor must carefully check the design and report any inaccuracies, incompleteness or discrepancies with any standard or law.
-Connections between two or more sections of duct both with indoor units and with ducts themselves, shall be made only with invitation fittings and not wit hammered derivations or detachments. The Contractor shall be responsible for making construction drawings showing the type of derivations and connections between ducts and ducts with the indoor units provided.

Rev	Details	By / Chkd / App	Date
P02	STAGE 3 - 100% ISSUE	L22	28/02/2025
P01	STAGE 2	L22	11/10/2024

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Project Title
MIL05B

Drawing Title
External Services
Sitewide Rainwater Drainage

Project Status
STAGE 3

Discipline
MECHANICAL

Status Code
S4

Project Number
P10504

Scale @ A0
1:250

Revision
P02

Drawing Number
MIL05B-L22-SW-SW-DR-M-90203

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